Metrika

International Journal for Theoretical and Applied Statistics

Founders
O. Anderson – H. Kellerer – A. Linder – H. Münzner – S. Sagoroff – W. Winkler

Editors
– W. Uhlmann – O. Krafft

Volume 31
1984

Physica-Verlag · Wien

ISSN 0026-1335

Referees are at present:

E. Bomsdorf, Köln – **H. Drygas**, Kassel – **L. Fahrmeir**, Regensburg – **P. Gänssler**, München – **M. Haber**, Atlanta – **J. Hartung**, Dortmund – **E. Helten**, Mannheim – **K. Hinderer**, Karlsruhe – **A. Irle**, Münster – **J. Jureckova**, Prag – **D. Morgenstern**, Hannover – **U. Müller-Funk**, Freiburg – **D. Mußmann**, Münster – **D. Plachky**, Münster – **F. Pukelsheim**, Augsburg – **R.-D. Reiß**, Siegen – **B. Rüger**, München – **N. Schmitz**, Münster – **H. Schneeweiß**, München – **P. Schönfeld**, Bonn – **M.C. Spruill**, Atlanta – **H. Stenger**, Mannheim – **H. Störmer**, Mannheim – **H. Strasser**, Bayreuth – **H. Strecker**, Tübingen – **W. Vogel**, Bonn – **H. Ziezold**, Kassel.

All Rights Reserved. No Part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the permission of the publisher.

Composed and printed by: Liebing Druck GmbH, Würzburg
Printed in Germany
© PHYSICA-VERLAG Ges.m.b.H., Schottengasse 7/5, A–1011 Wien
1984
ISSN 0026-1335

CONTENTS

I. Publication

Abraham, B., and *W.W.S. Wei*: Inferences about the Parameters of a Time Series Model with Changing Variance 183
Ahsanullah, M.: A Characterization of the Exponential Distribution by Higher Gap 323
Basu, S.K.: A Local Limit Theorem for Attraction to the Standard Normal Law: The Case of Infinitive Variance 245
Brunner, E., and *N. Neumann*: Rank Tests for the 2 × 2 Split Pilot Design 233
Budde, M.: Optimale Zweifachblockpläne bei Seriell Korrelierten Fehlern 203
Charalambides, Ch.A.: Minimum Variance Unbiased Estimation for the Zero Class Truncated Bivariate Poisson and Logarithmic Series Distributions 115
Deistler, M., B.M. Pötscher, and *J. Schrader*: The Uniqueness of the Transfer Function of Linear System from Input-Output Observations 157
Dieter, U., and *I.H. Ahrens*: The Prison Rule in Roulette 227
Gupta, A.K., and *C.F. Wong*: On an Morgenstern-Type Bivariate Gamma Distribution 327
Haber, M.: The Large-Sample Power of the χ^2 Test for Multidimensional Contingency Tables . 195
Henze, N.: Über die Anzahl von Zufallspunkten mit typ-gleichem nächsten Nachbarn und einen multivariaten Zwei-Stichproben-Test 259
Huehn, M.: Improvement of the Predicted Least-Squares-Estimates in Multiple Linear Regression by Means of an Examination of Residuals 333
Jolivet, E.: Upper Bound of the Speed of Convergence of Moment Density Estimators for Stationary Point Process 349
Kabe, D.G.: Classical Statistical Analysis Based on a Certain Hypercomplex Multivariate Normal Distribution 63
Kapadia, C.H., and *D.L. Weeks*: Minimal Sufficient for the Group Divisible Partially Balanced Incomplete Clock Design (GD-PBIBD) with Interaction under an Eisenhart Modell II 127
Katzenbeiser, W.: Die asymptotische Verteilung des Prognosefehlers bei Prognosen mit Hilfe eines dynamischen ökonometrischen Modells höherer als erster Ordnung 5
Ketellapper, R.H., and *A.E. Ronner*: Are Robust Estimation Methods Useful in the Structural Errors-in-Variables Model?. 33
Kiregyera, B.: Regression-Type Estimators Using Two Auxiliary Variables and the Model of Double Sampling from Finite Populations 215
V. Kurotschka, und *W. Wierich*: Optimale Planung eines Kovarianzanalyse- und eines Intraclass Regressions-Experiments. 361
Landers, D., and *L. Rogge*: Natural α-Quantiles and Conditional α-Quantlies 99
Landers, D., and *L. Rogge*: Differentiability Properties of the s-Mean m_s at $s = 1$ 379
Neffke, H.: Das Gesetz des iterierten Logarithmus für kumulative Prozesse 145
Niemi, H.: The Invertibility of Sampled and Aggregated ARMA Models. 43
Padmawar, V.R., and *P. Mukhopadhyay*: Estimation of Symmetric Functions of a Finite Population 98
Prabhu-Ajgaonkar, S.G.: A Note on Necessary Best Estimator of Order Two 1
Puri, M.L., and *L.T. Tran*: The Hausdorff α-Dimensional Measures of the Level Sets and the Graph of the N-Parameter Wiener Process 275

Rao, T.J.: Some Aspects on Random Permutation Models in Finite Population Sampling Theory 25
Rao, T.J.: On Brewer's Class of Robust Sampling Designs for Large-Scale Surveys 319
Saksena, S.K., and *A.M. Johnson*: Best Unbiased Estimators for the Parameters of a Two-Parameter Pareto Distribution 7
Sharma, D.: On Estimating the Variance of a Generalized Laplace 85
Stadje, W.: Wrapped Distributions and Measurement Errors 303
Störmer, H.: Bemerkungen zu den Sätze von Jordan 51
Wierich, W.: Konkrete optimale Versuchspläne für ein lineares Modell mit einem qualitativen und zwei quantitativen Einflußfaktoren 285

II. Book Reviews

Asmussen, S., and *H. Hering*: Branching Processes (*G. Ivanoff*) 244
Anderson, O. jun.: Quantitative and qualitative Konjunkturindikatoren (*A. Wagner*) 244
Bergström, H.: Weak Convergence of Measures (*E. Siebert*) 284
Dinges, H., und *H. Rost*: Prinzipien der Stochastik (*H. Drygas*) 260
Dik, J.J.: Test for Preference (*R. Reiß*) 182
Does, R.J.M.M.: Higher Order Asymptotics For Simple Linear Rank (*R. Reiß*) 282
Eichhorn, W., et al.: Economic Theory of Natural Resources (*F. Haslinger*) 114
Freedman, D.: Brownian Motion and Diffusion (*H. Heyer*) 42
Freidlin, M.J., and *A.D. Wentzel*: Random Perturbations of Dynamical Systems (*Arnold*) . . . 348
Goldberg, S.: Probability in Social Science (*D. Morgenstern*) 24
Hartigan, J.A.: Bayes Theory (*D.V. Lindley*) 214
Hartung, J., B. Elpelt, und *K.-H. Klösener*: Statistik (*H.-O. Georgii*) 125
Hartung, J., und *H.J. Werner*: Hypothesenprüfung im restringierten linearen Modell (*O. Krafft*) 302
Heiler, S.: Recent Trends in Statistics. Proceedings of the Anglo-German Statistical Meeting at Dortmund, May 24–26, 1983 (*K. Daniel*) 232
Heyer, H.: Theory of Statistical Experiments (*H. Strasser*) 60
Itô, K., and *J.V. Prokhorov*: Probability Theory and Mathematical Statistics (*H. Heyer*) 258
Kall, P.: Analysis für Ökonomen (*E. Schaich*) 24
Kemp, K.W.: Dice, Data and Decisions (*H. Heyer*) 318
Kendall, M., A. Stuart, and *J.K. Ord*: The Advanced Theory of Statistics (*O. Krafft*) 42
Kesten, H.: Percolation theory for Mathematiciens (*H.-O. Georgii*) 124
Lawless, J.F.: Statistical Models and Methods for Lifetime Data (*D. Oakes*) 182
Leadbetter, M.R., G. Lindgren, and *H. Rootzen*: Extremes and Related Properties of Random Sequences and Processes (*J. Hüsler*) 98
Lehmann, E.L.: Theory of Point Estimation (*P.J. Bickel*) 256
Lukacs, E.: Developments in Characteristic Function Theory (*H. Heyer*) 257
Moeschlin, O., and *D. Pallaschke*: Game Theory and Mathematical Economics (*K. Jacobs*) . . . 238
Müller, P.: Entscheidungstheoretisch begründete Schätzverfahren (*O. Moeschlin*) 385
Nicolai, W.: Time Oriented Analysis of Projects Using Stochastic Networks Techniques (*K. Jacobs*) 260
Pratt, J.W., and *J.D. Gibbons*: Concepts of nonparametric theory (*H. Heyer*) 238
Strecker, H., R. Wiegert, J. Peeters, and *K. Kafka*: Messung der Antwortvariabilität auf Grund von Erhebungsmodellen mit Wiederholungszählungen (*Tore Dalenius*) 254
Thiel, N.: Zeitliche Aggregation (*H. Schneeweiß*) 84
Tüshaus, U.: Aggregation binärer Relationen in der qualitativen Datenanalyse (*K. Ambrosi*) . . 274
Uhlmann, W.: Statistische Qualitätskontrolle (*W. Schaafsma, and J. van der Werff, Groningen*) 282
Van der Hoeven, P.C.T.: On Point Processes (*Papalangelou*) 267
Vapnik, V.N.: Estimation of Dependences Based on Empirical Data (*P. Gänssler*) 61